

WHAT IS CLAIMED IS:

1. A lighting device having a three-way conductor strip extending in an axial direction;  
LED elements arranged one behind the other in a row and in intervals along the axial  
direction of the conductor strip; the three-way conductor strip comprises a continuous positive  
conductor, a continuous negative conductor and an interrupted central conductor that extends  
5 from LED element to LED element in the row;

a respective plastic housing containing each LED element, the housing being shaped to  
also surround the conductor strip at and around the LED element, the housing being at least  
partly light emitting;

the housing being comprised of a first and a second shell, the first shell being a holding  
10 shell adapted to hold the respective LED element, at least one electrically conductive contact at  
the LED element in the housing and at an axial direction conductor strip area of the conductor  
strip;

the second shell is fixable to the first shell and sealing means between the first and second  
shells.

2. The lighting device of claim 1, wherein the electrically conductive contacts are between  
the conductor strip and the LED elements, and the conductive contacts are metallic contact  
elements.

3. The lighting device of claim 2, further comprising heat-activatable conductive material  
disposed in the housing to provide electric contact between the conductor strip and the LED.

4. The lighting device of claim 3, wherein the heat activatable conductive material  
comprises solder paste or contact adhesive.

5. The lighting device of claim 2, further comprising a plug-in mounting connecting each metallic contact element with one of the LEDs.
6. The lighting device of claim 2, wherein the conductor strip includes a conductive core with insulation around the core and the metallic contact elements include cutters which penetrate the insulation to make contact with the respective conductor cores.
7. The lighting device of claim 6, further comprising heat-activatable conductive material disposed in the housing to provide electric contact between the conductor strip core and the LED.
8. The lighting device of claim 2, wherein the conductor strip comprises a conductor core and insulation therearound, the conductor strip insulation being partly stripped at the electrically conductive contact means for enabling contact there.
9. The lighting device of claim 8, wherein the conductor strip includes a conductive core with insulation around the core and the metallic contact elements include cutters which penetrate the insulation to make contact with the respective conductor cores.
10. The lighting device of claim 9, wherein the heat-activatable material comprises solder paste or contact adhesive.
11. The lighting device of claim 1, wherein the central conductor is a resistance conductor.
12. The lighting device of claim 1, wherein the shells of the housing including integrally formed clip elements thereon which fix the shells of the housing to one another.

13. The lighting device of claim 1, wherein the shells of the housing include complementary holders for the respective individual conductors of the conductor strip, the respective LED element, and the respective metal contact elements.

14. The lighting device of claim 1, further comprising sealing means for sealing and permanent connection of the shells to each other.

15. The lighting device of claim 3, further comprising holders in at least one of the shells of the housing for the heat-activatable material.

16. The lighting device of claim 1, wherein the shells of the housing are clear molded parts.

17. The lighted device of claim 16, wherein the shells of the housing are glass clear injection-molded polycarbonate parts.

18. The lighting device of claim 1, further comprising a lens supported at the housing and disposed over the LED element.

19. The lighting device of claim 18, wherein the lens is shaped to distribute light with an emission angle no greater than  $120^\circ$ .

20. The lighting device of claim 18, wherein the lens has a shape to distribute light with an emission angle of  $108^\circ$ .

21. The lighting device of claim 1, further comprising a profiled strip in which the lighting device housing is supported and disposed.

22. An LED arrangement for a lighting device, wherein the lighting device includes a three-way conductor strip comprising a continuous positive conductor, a continuous negative conductor and an interrupted central conductor;

the arrangement comprising:

an LED; a light emitting plastic housing shaped to surround the LED and the conductor strip at and around the LED element;

the housing being comprised of a first and a second shell, the first shell being a holding shell adapted to hold the LED, at least one electrically conductive contact at the LED in the housing and at an axial direction conductor strip area of the conductor strip;

the second shell is fixable to the first shell and sealing means between the first and second shells;

the electrically conductive contact is between the conductor strip and the LED, and the conductive contact is a metallic contact element.

23. The LED arrangement of claim 22, further comprising heat-activatable conductive material disposed in the housing to provide electric contact between the conductor strip and the LED.

24. The LED arrangement of claim 22, wherein the conductor strip includes a conductive core with insulation around the core and the metallic contact elements include cutters which penetrate the insulation to make contact with the respective conductor cores.